

PRESS RELEASE

SAFETY BULLETIN

HAZARDS ASSOCIATED WITH HARDWOOD FLOOR REFINISHING

In light of the recent tragic event in Somerville regarding the death of two construction workers, the Boston Fire Department is issuing the following safety bulletin. This safety bulletin is designed to inform contractors, managers and homeowners to the potential hazards and dangers associated with hardwood floor installation and finishing/refinishing.

Since 1995 the City of Boston has experienced more than 25 fires directly attributed to hardwood floor installation and refinishing. This resulted in a property loss value of over 1.5 million dollars. In the majority of cases the cause of the fire resulted from failure to follow the manufacturer's safety precautions in the handling, use and storage of the floor finishing chemicals.

The process of hardwood floor installation and finishing or refinishing involves the use of any number of the following kinds of products:

- **Adhesives** - For gluing wood flooring to concrete or other surfaces
- **Sealers** - Chemicals used to seal the wood surface after sanding
- **Surface Finishes** - These finishes remain on the surface of the floor and form a protective coating

Contractors must be thoroughly familiar with the manufacturer's instructions and safety precautions associated with the products in use. Building managers and property owners should question their contractor as to the type of finishing chemicals the contractor is planning on using. In particular they should request from the contractor a copy of the manufacturer's safety precautions and review those sections pertaining to flammability and health hazards.

Improper handling of these products may present the following hazards:

Fire or Explosion

The use of these chemicals in poorly ventilated or enclosed areas may cause a significant build-up of flammable vapors. A spark or open flame could ignite the vapors causing a fire or explosion.

Health and Environment

Refinishing can create a large amount of dust from sanding. There is also the potential for chemical emissions from the sealer or surface finish. These products contain organic solvents and other substances: polyurethane, ureaformaldehyde and various resins. Workers who improperly handle the products can be exposed to high levels of vapors. Prolonged and repeated exposure may produce adverse health effects.

Safety Recommendations

- Always follow all of the manufacturer's safety precautions.
- All open flames and sources of ignition that may be present or within the heating or ventilation systems must be eliminated (example: pilot lights, electrical motors, open flame or smoking).
- Adequate ventilation must be provided per the manufacturer's recommendation.
- Adequate respiratory protection shall be provided and used.
- Less flammable or non-flammable products should be used when available.
- Less toxic products should be used when available to prevent adverse health effects in workers.

The Law

Commonwealth of Massachusetts regulations to date:

Flammable Liquids used for Floor Refinishing

527 CMR 14.03 (6) allows recognized tradesmen or artisans to have and use 5 gallons of flammable liquids without obtaining a permit, provided it is removed from the building or structure upon completion of each working day.

They must have a suitable fire extinguisher of a least 1A-10BC rating available at all times.

527 CMR 14.04 (8) in locations where flammable vapors may be present, precautions shall be taken to prevent ignition by eliminating or controlling sources of ignition. Sources of ignition shall include open flames, lightening, smoking, cutting, and welding, hot surfaces, frictional heat, sparks, static (electrical and mechanical), spontaneous ignition, physical chemical reactions and radiant heat. The Head of the Fire Department shall prohibit the use of devices or order the suspension of an operation when proper precautionary measures are not taken.

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Other sources of ignition: stoves, refrigerators, electric lights and switches, heating equipment, fans used for ventilation if not of the proper type.

BFPC 17.02 Permit Required

A permit shall be obtained for application of finishing materials by spraying, dipping or other means of which use of more than one gallon of flammable or combustible liquids or fluidized powders in any working day. No permit will be required for small, intermittent spraying operations for domestic or other incidental use unless required by the Head of the Fire Department when such operations are a major process of a business.

In closing this information is provided on the Boston Fire Department website at www.cityofboston.gov/bfd. Additional questions can be directed to the Fire Marshal at:

Boston Fire Department
Fire Marshal
1010 Massachusetts Avenue
Boston, MA 02118

Phone: 617-343-3402